



Government of West Bengal
Office of the Director General
West Bengal Fire & Emergency Services
13D, Mirza Ghalib Street, Kolkata – 16

Memo No.: FSR/211862506300011649

Date : 16-04-2025

From :
Director
Fire Prevention Wing,
West Bengal Fire & Emergency Services

To :
The Director, Sun Rolling Mill Pvt Ltd
HOLDING NO.23,AGRASAIN STREET,,MOUZA-MALIPANCHGHORA, J.L NO -17,WARD NO.- 26,DIST.-
HOWRAH,PIN-711204

Sub: Fire Safety Recommendation for proposed construction of B+G+IX storied Commercial Cum Residential Housing Complex comprising of 02 nos. Tower (1 & 2) and Ground Floor & First (1st Floor) used as Commercial and Second (2nd) to Ninth (9th) Floor used as Residential under group Residential Building at premises Holding No. -23, Agrasain Street, R.S. Dag No. – 566, 567, 568, 569 Now L R Dag No. – 344, L.R. Khatian No. – 767, Mouza – Malipanchghora, J.L. No. – 17, Ward No. – 26, Under Bally Municipality, Dist. – Howrah, Pin – 711204, W.B.

This is in reference to your AIN 211862506300011649 dated 18-Feb-2025 regarding Fire Safety Recommendation for proposed construction of B+G+IX storied Commercial Cum Residential Housing Complex comprising of 02 nos. Tower (1 & 2) and Ground Floor & First (1st Floor) used as Commercial and Second (2nd) to Ninth (9th) Floor used as Residential under group Residential Building at premises Holding No. -23, Agrasain Street, R.S. Dag No. – 566, 567, 568, 569 Now L R Dag No. – 344, L.R. Khatian No. – 767, Mouza – Malipanchghora, J.L. No. – 17, Ward No. – 26, Under Bally Municipality, Dist. – Howrah, Pin – 711204, W.B.

The plan submitted by you was scrutinized and marked as found necessary from Fire Safety point of view. In returning one set of plan with recommendation, this office is issuing Fire Safety Recommendation in favor of the aforesaid building for compliance of the following fire safety measure.

Recommendation :



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A) Construction:

1. The whole construction of the building shall be carried out as per approved plan drawings conforming the relevant building rules of competent authority.
2. The floor area exceeds 750 m² shall be suitably compartmented by separation walls up to ceiling level having two hours fire resisting capacity.
3. The interior finish decoration of the building shall be made low flame spread materials conforming I.S. specifications.
4. Arrangement shall have to be made for sealing all the vertical and horizontal ducts by the materials of adequate fire resisting capacity.
5. Service Ducts and shafts should be enclosed by a wall of 2 hours and doors of 1 hour fire rating. All such ducts shall be properly sealed and fire stopped at all floor level.
6. FCDs shall have to be provided as per approved plan drawings.

B) Open Space & Approach:

1. The open space surrounding the building shall be kept clear open to sky and shall conform the relevant building rules as well as permit the easy accessibility and maneuverability of Fire appliance with turning facility.
2. The approach road and roads surrounding the building shall be sufficiently strong to withstand the load of Fire Engine weighting up to 45 M.T.
3. The width and height of the entry gates to the premises shall be as per approved plan.
4. Drive way should be free from any type of obstruction. No parking will be allowed on the drive way.
5. All the passages should be kept clear for free access.

C) Staircases:

1. The staircase of the building shall be enclosed type Entire construction shall be made of bricks / R.C.C. type having Fire resisting capacity not less than 4 hours respectively marked in the plan.
3. All the staircase of the building shall be negotiable to each other in each floor without entering into any room and shall be extended up to respective terrace.
4. The width of the staircases, corridors and travel distance of different of occupancies shall have to conform the relevant building rules.
5. The staircase shall be extended from ground up to respective terrace of the building and shall be negotiable to each other in each floor without entering into any room.
6. Fire and Smoke check doors with panic bar at the entrances of the Staircase enclosures at each floor level as marked in the plan shall be provided. The F.C.D. shall be of at least two hour Fire resisting wire glass window fitted with self-closing type openable in the direction of escape.
7. Considering the staircases are only means of evacuation, emergency lighting arrangement directional, exit, sign etc. shall be made conforming the relevant I.S. Code in this regard.

D) Lifts:

1. Collapsible gates shall not be permitted in the lift car.
2. The walls of the lift enclosure shall be at least four hours fire resisting type
2. Lifts cannot be used as means of escape during fire situation.
3. All other requirements shall conform the I.S. specification including the communication facility in the lift cars connecting to the Fire Control Room of the building.

E) Basement:

1. Automatic mechanical Smoke Venting arrangements shall be provided to the basement conforming the relevant I.S. Specification and provision of NBC Part – IV, 2016.
2. The basement shall be protected with Automatic Sprinkler System conforming to I.S.
3. Mechanical extractor for Smoke Venting system shall have an interlocking arrangement so that extracting shall continue to operate and supply fans shall stop automatically with the actuation of heat/smoke sensitive detector or suitable detection system.
4. Mechanical extractors shall have an alternative source of supply.
5. The entire basement shall be protected with landing valve and hose reel hose system as per relevant I.S. Specification.

F) Service Ducts/Shafts:



1. Service ducts & shafts shall be enclosed by walls and door by relevant fire resisting rating.
2. All such ducts shall be properly sealed & fire stopped at all floor level.
3. A vent opening at the top of the service duct shall also be provided.

G) Refuge Area:

The refuge area shall be built as shown in the plan on the periphery of the floor or preferably on a cantilever projection and open to air protected by FCD and emergency lighting arrangement. Sufficient space shall be available underneath the Refuge Area. Emergency lighting arrangement shall be provided in the Fire Refuge Platform (FRP).

H) Fire Fighting Water:

1. Underground water reservoir having total water capacity of not less than 1,50,000 ltrs exclusively for this fire fighting purpose shall be provided.
2. Overhead reservoirs of not less than 25,000 ltrs. over each Tower i.e. Tower 1, 2 as shown in the plan drawings exclusively for firefighting purpose shall be kept full at all time.
3. The fire water reservoir shall have overflow arrangement with the domestic water reservoir as well as to avoid stagnancy of water.
4. Provision of replenishment arrangement @ 2000 ltrs./min. preferably from two different sources of water supply shall be provided.
5. The deep tube wells for the replenishment of the reservoir shall be incorporated with the auto starting facility with the actuation of auto detection and suppression arrangement of the premises and shall also be connected with diesel power supply units.
6. Provision of placing Fire Appliances on the underground water reservoir to be made to draw water in case of emergency.

I) Hydrant system:

a. External Hydrant/ Ring Main Hydrant System IS: 13039:1991-

1. Provided 150 mm dia. Ring Main water layout arrangement converting the entire premises of the project with provision of Ring Main Hydrant system or pillar type yard hydrants with door Hose Boxes containing 2(two) lengths of 63 mm delivery hose and short branch pipe shall be provided at all strategic location and surrounding the building conforming I.S. Specification (with up to date amendment).

2. The system shall be so designed that shall always be kept charged with water under pressure and capable to discharge 2850 ltrs./min. at the pressure of 3.5 kg/sq.cm at any point.

3. Provision of suitable Fire Service Inlet shall be made as per relevant I.S. specification.

b. Internal Hydrant/Wet Riser & Hose Reels System IS 3844:1989-

1. The building shall be provided with Wet Riser of 100 mm internal diameter pipe line for each Tower i.e. one (01) no. Wet Riser for Tower-1 and one (01) no. for Tower-2 with provision of landing valves at the staircase landings/half landings at the rate of one such rises for 1000 sqm. of floor area of each Tower i.e. Tower 1, 2.

2. The system shall be so designed that shall be kept charged with water all the time under pressure and capable to discharge 2850 ltrs./min. at the ground floor level outlet and minimum 900 ltrs./min at the top most furthest outlet. In both cases the running pressure shall not be less than 3.5 kg/sqm. All other requirement shall conform I.S. 3844:1989.

3. Provision for Hose Reel units on swiveling drum in conjunction with Wet Riser in each Tower i.e. Tower 1, 2 shall be made near each landing valves.

4. Hose Reel unit with provision of outlets in each floor of Tower-1, 2 at the staircase landings/half landing as per suitable at the rate of one such unit of Wet Riser and Hose Reel as per 1000 sqm. of floor area.

5. All other requirements of the water base Fire Protection System shall be made as I.S. Specification 3844:1989 (with up to date amendment).

c) Hose reel system IS 884:1985-

The building should be equipped with Hose reel system in each floor of Tower-1, 2 as per IS code of practice. The internal dia. of the said hose reel hose shall be 19 mm to 32 mm and the discharge capacity not less than 22.5 LPM. While length of the hose reel not more than 36.5 meters. The distance of such installation should be in such way that no part of floor is more than 6 meters distance from a nozzle when fully extended.

J) Sprinkler Installation IS- 15105:2002-

The automatic Sprinkler installation shall be provided at entire Basement, Ground Floor Business Area &



Covered Car Parking and First Floor Business Area, Fire Pump Room and all vulnerable areas of the building as per I.S. Specification. Alarm gang to be incorporated along with the Sprinkler System as per I.S. Specification.

K) Pumps for Fire Fighting installation IS – 12469:1988:-

1. One (01) No. Jockey Pump of 180 LPM.
 2. One (01) No. Main Fire Pump of 2850 LPM.
 3. One (01) No. Stand by Fire Pump preferably diesel driven type of 2850 LPM.
- All pumps must be kept in auto mode. Electric Fire Pumps shall be connected with alternative D.G. power supply.

L) Auto Detection and Alarm System:

1. Manually operated Electrical Fire Alarm system with at least three numbers of break glass type call boxes fitted with Hooters along with public address system, at each floor of Tower-1, 2 and in Ground Floor and First Floor connecting with audio-visual panel board shall be made in Control Room. The Control Room shall be located at the entrance of Ground Floor of the building and other requirements of the system shall be made conforming I.S. 2189:2008.
2. Hooter will be sounded in such a manner so that an operation of a Detector or Manual Call Point Hooters will be sounded on the same floor and immediate alternate floor.
3. Auto fire detection system with the help of flent and smoke detector shall be installed in the Ground Floor Business Area & covered Car Parking Area and First Floor Business Area of the building. The requirements of the system shall be made in accordance with I.S. 2189:2008.
4. Auto Fire Alarm System with smoke /heat detector as per suitability shall be installed in Ground Floor and First Floor Area.
5. Public Address System shall have to be provided and linked between all floors and control room.
6. All the installation shall also satisfy the I.S. Specification 2189 as amended the code of practice as laid down in N.B.C. Pt. IV.

M) Electrical Installation & Distribution:

1. The electric distribution cable/wiring shall be laid in separate duct. The duct shall be sealed at every floor with noncombustible materials.
2. Telephone lines, water mains, gas pipes or any other service lines shall not be laid out in the duct for electrical cables/wires.
3. The electrical installation including Transformer, switch gear, main. Main & meter of the premises shall be provided in separate enclosures apart from the building in accordance with IS 1946:1982.
4. Separate circuit for fire fighting, fire lift, staircase & corridor lighting & blowers for pressurization system shall be provided.
5. All electrical installation shall be protected by auto detection and suppression system either water based or inert gas based.
6. All electrical cables shall pass through Fire resistant conduit and shall be sealed at each floor level with suitable detection system.
7. The electrical installation shall be adequately protected with CO2/D.C.P. Fire Extinguishers.
8. Electrical installation should be tested by the licensed electricians periodically.
9. The vertical & horizontal ducts shall be sealed at alternative floor level.

N) Alternative Power Supply:

Arrangements shall have to be made to supply power with the help of a generator to operate at least the Fire Pump, Pump for deep Tube-well, Fire Alarm System, Fire Lift etc. and also for illuminating the Staircase, corridors etc. and other places of assembly of the building in case of normal power failure.

O) Fire Control Room:

1. A control room on the entrance floor of the building with communication system to all floors and facilities for receiving the messages from different floors.
2. Details of all floor plans along with the details of firefighting equipment and installations shall be displayed in the fire control room.
3. The fire control room shall also have facilities to detect the fire on any floor through indicator board's connection, fire detection and alarm system on all floors.



4. The fire staff in charge of the fire control room shall be responsible for maintenance of the various services and the firefighting equipment & installations in co-ordination with security electrical & civil staff of the building.

P) Air Conditioning System (if any):

1. The A.H.U. shall be separated for each floor with the system Air Ducts for individual floors.
2. Arrangement shall be made for isolation at the strategic locations by incorporating auto dampers in the Air Conditioning system
3. The system of auto shut down of A.H.U. shall be incorporated with the auto detection and alarm system.
4. The Air Handling Units room shall not be used for storage of any combustible materials.
5. Fire dampers & air handling unit will automatically be switched off when the auto fire alarm system operates.
6. The air handling units shall be separation for each floor and air ducts for every floor shall be separated and in no way interconnected with the ducting of any other floor.
7. The air filters for air handling units shall be of non-combustible materials.

Q) First Aid Fire Fighting system:

1. First Aid Fire Fighting System arrangement in the style of placing suitable type of portable Fire Extinguishers-I.S.I. mark, Fire Buckets etc. in all floors and vulnerable locations of the premises shall be made in accordance with I.S. 2190 – 1992.
2. Special rescue equipment like Smoke Hood, self contained B.A. set portable lights as per required quantity shall be made available in the main Fire Control Room of the premises.

R) Transformer:

Transformer shall conform to the following:

1. A substation or a switched station with oil filled equipment shall not be located in the building.
2. The substation structure shall have separate fire resisting walls surroundings and necessarily be located at the periphery of the floor having separate access from the fire escape staircase.
3. The outside walls ceiling, floor, opening including doors & windows to the substation area shall be provided with a fire resisting door of 2 hours fire rating.
4. Direct access to the transformer room shall be provided preferably from outside the fire escape staircase.

S) Small Gears: IS: 903 -1993:-

Hose box, 15 M length pemoline delivery hose, Gun Metal short branch of half inch dia. One set at each pillar hydrant should be installed.

T) General Recommendations:

1. Fire License shall have to be obtained for proposed storing and processing with L.P.G and other highly combustible articles.
2. Fire Notice for Fire Fighting and evacuation from the building shall be prepared and be displayed at all vulnerable places of the building.
3. Floor numbers and directional Sign, showing the nearest Refuge Area, Fire Points etc. shall have photo luminescent signals at each floor of all blocks of buildings including shall be made available conforming the relevant I.S. Specification.
4. Provision of emergency illuminating exit shall be made at all floor levels of all blocks of building conforming I.S. Specification.
5. Arrangement shall be made for regular checking, testing and proper maintenance of all Fire Safety installation and equipments and means of escapes installed in the building to keep them in perfectly good working conditions at all times.
6. A crew of trained Fireman under the experienced Officer shall be maintained round the clock for safety of the building.
7. Mock Fire practice and evacuation drill shall be performed periodically with participation of all occupants of building.
8. Telephone numbers of all emergency services/Department to be kept in counter and displayed in conspicuous places.
9. "NO SMOKING" sign to may be displayed in prominent place in Hindi, English and local languages.
10. Floor numbers and Directional Sign of Escape Route shall be displayed prominently.



11. Good Housekeeping shall have to be maintained properly.

12. A certificate is to be obtained from the Director General, West Bengal Fire & Emergency Services certifying about the satisfactory services, performance of all the Life and Fire Safety arrangements and installation of the building.

On compliance of all the above Life and Fire Safety Recommendation, the Director General, West Bengal Fire & Emergency Services shall be approved for necessary inspection and testing of all the installation, Fire Safety Certificate in favour of the occupancy shall be issued on being satisfied with the tests and performances of safety aspects of installation of the building.

N.B. : Any deviation and changes the nature of use of the building in respect of the approved plan drawing, without obtaining prior permission from this office, this Fire Safety Recommendation will be treated as cancelled.

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Director

West Bengal Fire & Emergency Services